

REMARKS

The rejection of claims 1 to 3 under 35 USC 112, first paragraph, is respectfully traversed.

Applicant has restricted the adjuvants recited in claims 1 and 2 to the specific adjuvants supported by the description appearing on page 6, line 28 to page 7, line 16 and the working examples in the subject specification. Accordingly, the above rejection is considered moot and should be withdrawn.

The rejection of claims 1 to 3 under 35 USC 103(a) as being unpatentable over Kim et al. '080 as evidenced by the sigma® in view of Capuzzi et al., U.S. Patent No. 5,909,072, is respectfully traversed.

The subject invention is now characterized by the combination of the agrochemical of formula (I) or formula (II) with the specific adjuvants listed in amended claim 1. The technical feature of the subject invention resides in combining an agrochemical of formula (I) or formula (II), which has been proved very effective for protecting crops against plant diseases, but not so good to cure affected crops due to their lack of penetrability. The specific adjuvants recited in amended claim 1, increase the foliar uptake and spray deposition of the fungicidal compounds to crop plants to enhance the curative activity thereof against plant diseases (*see* page 2, lines 17 to 21 and 30 to 34 of the subject specification).

The cited reference Kim et al. '080 merely discloses the agrochemicals of formula (I) or (II) in combination with tween20 (polyoxyethylenesorbitan monolaurate). This does not provide any help for improving the penetration of said agrochemicals.

The adjuvants employed in the subject invention of claims 1 and 2 are distinctly different in chemical structure as well as their effect to enhance the penetration of the subject agrochemicals relative to the teaching in Kim et al. '080.

The cited reference Capuzzi et al. '072 is directed to adjuvants for systemic fungicides in the form of a stable microemulsion comprising (i) water, (ii) a mixture of methyl esters of fatty acids, (iii) an anionic surface active agent, (iv) at least one non-ionic surface-active agent with an HLB of between 13-18 and a cloud point of >65 °C and (v) at least one non-ionic surface-active agent with an HLB of between 10 and 12. Capuzzi et al. '072 aims to provide adjuvants in the form of a stable micro-emulsion and thus, focuses on the combination of anionic and non-ionic surface-active agents and their HLB value meaning the hydrophilic-lipophilic balance (see column 1, lines 44 to column 2, line 3 of D2). More specifically, the surface-active agents of items (iii), (iv) and (v) in Capuzzi et al. '072 are merely used to form a stable microemulsion comprising water and a mixture of methyl esters of fatty acids, not as an adjuvant for enhancing the fungicidal efficacy.

Furthermore, Capuzzi et al. '072 suggests using the combination of five components from items (i) to (v) as stated above to improve the activity of systemic fungicides. This teaches away from the technical feature of the subject invention of using any one type of surface-active agent for improving the fungicidal activity of certain agrochemicals.

In addition, although Capuzzi et al. '072 lists several systemic fungicides usable together with the microemulsion adjuvant, the agrochemicals of the subject application are not included therein. As shown in Tables 14 and 18 of the subject specification, the subject agrochemicals alone are hardly capable of penetrating into the leaves of the crops without use of the subject adjuvant. Due to such poor penetration activity, the subject agrochemical requires certain adjuvants to make them penetrate.

In actual fact, when the subject agrochemicals are combined with methyl esters of fatty acids as disclosed in Capuzzi et al. '072, they exhibit a poor penetration (see tables 19 and 22 of the subject specification).

However, when the subject agrochemicals are mixed with the adjuvants listed in amended claim 1, as shown in Tables 14, 18, 23, 25, 26 and 27 of the subject specification, the subject fungicidal composition has a very excellent penetration activity, up to 140 times, in various affected crops as compared with the control fungicidal composition which does not contain the subject adjuvant. This is an unexpected result.

Accordingly, the composition is not obvious to a person skilled in the art from Kim et al. and Capuzzi et al. Moreover, the subject composition produces unexpectedly remarkable effects.

Reconsideration and allowance of claims 1, 2 and 3 is respectfully solicited.

Respectfully submitted,



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By 
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